

TREATMENT PROTOCOL: NERVE AGENT EXPOSURE

1. Contact hazmat resources according to provider agency protocol
2. Secure area, establish incident site, and don protective equipment/gear appropriate for hazardous material exposure according to the provider agency protocol
3. If more than 2 victims, begin triage (Ref. No. 519.2, MCI Triage Guidelines) and antidote treatment based on victims' exposure
4. **ESTABLISH BASE or MEDICAL ALERT CENTER (MAC) CONTACT**
Provide important scene information such as the type of decontamination performed, signs/symptoms, smells, properties of contaminant (e.g., solid, liquid, gas)

If there are multiple symptomatic patients, Diazepam and Pralidoxime Chloride are available in the EMS Chempack and can be requested from the Medical Alert Center when 50 or more victims are involved

For severe exposure, begin treatment immediately prior to decontamination
For mild and moderate exposure, ensure decontamination procedures are completed before treatment or transport to facility ❶

MILD EXPOSURE: miosis, rhinorrhea and increased salivation:

Mark I kit or DuoDote (atropine 2.1mg and pralidoxime chloride 600mg) 1 dose IM ❸❹

If symptoms persist:

Atropine

2mg IM or IV

May be repeated every 5min until patient symptoms improve

After 6mg IM, subsequent doses to be given IV



Pediatrics: 0.05mg/kg IM or IV - See Pediatric (Color Code) Dosages for Chemical Weapons ❷

MODERATE EXPOSURE: miosis, rhinorrhea, shortness of breath and/or vomiting and diarrhea:

Mark I kits or DuoDotes 2 doses IM one after another ❸❹❺

If symptoms persist:

Atropine

2mg IM or IV

May be repeated every 5min until patient symptoms improve

After 6mg IM, subsequent doses to be given IV



Pediatrics: 0.05mg/kg IM/IV - See Pediatric (Color Code) Dosages for Chemical Weapons ❷

SEVERE EXPOSURE: respiratory distress, respiratory arrest, cyanosis, extreme SLUDGE (salivation, lacrimation, urination, defecation, gastrointestinal distress and emesis) seizures, unconsciousness

Mark I kits or DuoDotes 3 doses IM one after another ❸❹❺

Midazolam (or if available, see Diazepam below)

2-5mg IV titrated to seizure control

5mg IN or IM if unable to obtain venous access

May repeat one time in 5min, maximum total adult dose 10mg all routes



Pediatrics: 0.1mg/kg IV - See Pediatric (Color Code) Dosages for Chemical Weapons

5mg IM, if unable to obtain venous access

May repeat one time in 5min, maximum total pediatric dose 5mg all routes

Diazepam (if available)

10mg IM or 5-10mg IV



Pediatrics: 0.1mg/kg IV - See Pediatric (Color Code) Dosages for Chemical Weapons

TREATMENT PROTOCOL: NERVE AGENT EXPOSURE

If symptoms persist:

Atropine 2mg IM or IV

May be repeated every 5min until patient symptoms improve

After 6mg IM, subsequent doses to be given IV



Pediatrics: 0.05mg/kg IM/IV - See Pediatric (Color Code) Dosages for Chemical Weapons ②

Once resources allow, perform:

5. Basic airway
6. Spinal immobilization prn
7. Oxygen/pulse oximetry
8. Advanced airway prn
9. Cardiac monitor: document rhythm and attach ECG strip if dysrhythmia identified
10. Venous access prn
11. If hypotensive,

Normal Saline fluid challenge




10ml/kg IV at 250ml increments

Use caution if rales present



Pediatrics: 20ml/kg IV

SPECIAL CONSIDERATIONS

- ① If eye involvement: continuous flushing with NS during transport; allow patient to remove contact lenses, if possible
- ② AtroPen:
 **Pediatrics:** See Pediatric (Color Code) Dosages for Chemical Weapons
6-18kg: Mild 1 AtroPen 0.5mg
Moderate 2 AtroPen 0.5mg
Severe 3 AtroPen 0.5mg
18-41kg: Mild 1 AtroPen 1.0mg
Moderate 2 AtroPen 1.0mg
Severe 3 AtroPen 1.0mg
- ③ Administer additional Mark I kits or DuoDotes for a total of 3 if symptoms progress in MILD or MODERATE exposures.
- ④  **Pediatrics:** For severe exposures, 1 Mark-I kit or Duodote can be given to any child, regardless of age or weight, as the initial antidote therapy when no other atropine or pralidoxime source is available.
- ⑤ Pralidoxime Chloride (2PAM) is available in EMS Chempack, for moderate and severe symptoms only
 **Pediatrics:** See Pediatric (Color Code) Dosages for Chemical Weapons
weight less than 20kg or 2yrs of age and younger: 20mg/kg IM one time
Weight equal to or greater than 26kg or 2yrs of age and older: give 600mg IM one time